EduSahara™ Assignment

Name : Circle Basics

Chapter : Circles

Grade : SSC Grade IX

1. The mid-point of the diameter of a circle is called

   (i) radius (ii) diameter (iii) centre (iv) circumference (v) chord

2. A line segment joining any point on the circle with its centre is called

   (i) chord (ii) major segment (iii) radius (iv) centre (v) segment

3. A line segment having its end points on the circle is called a

   (i) major segment (ii) chord (iii) semi-circle (iv) centre (v) circumference

4. A chord that passes through the centre of the circle is called

   (i) chord (ii) centre (iii) circumference (iv) diameter (v) semi-circle

5. A chord of a circle divides the whole circular region into two parts, each called a

   (i) radius (ii) segment (iii) major segment (iv) chord (v) diameter

6. The segment of the circle containing the centre of the circle is called

   (i) chord (ii) radius (iii) circumference (iv) major segment (v) centre

7. Half of a circle is called

   (i) major segment (ii) semi-circle (iii) circumference (iv) segment (v) centre

8. The perimeter of a circle is called

   (i) major segment (ii) radius (iii) segment (iv) circumference (v) centre

9. Which of the following statements are true?

   a) A line can meet a circle atmost at two points.
   b) Every circle has a unique diameter.
   c) Every circle has a unique centre.
   d) A circle consists of an infinite number of points.
   e) Each radius of a circle is also a chord of the circle.

   (i) {b,e,d} (ii) {b,a} (iii) {e,c} (iv) {b,a,c} (v) {a,c,d}

10. Which of the following statements are true?

    a) Every circle has a unique diameter.
    b) One and only one tangent can be drawn to a circle from a point outside it.
    c) An infinite number of diameters may be drawn for a circle.
    d) Two semi-circles of a circle together make the whole circle.
    e) An infinite number of chords may be drawn for a circle.

    (i) {b,d} (ii) {a,c} (iii) {c,d,e} (iv) {a,b,e} (v) {a,c,d}

11. Which of the following statements are true?

a) One and only one tangent can be drawn to a circle from a point outside it.
b) One and only one tangent can be drawn to pass through a point on a circle.
c) Every circle has a unique diameter.
d) A secant of a circle is a segment having its end points on the circle.
e) Diameter of a circle is a part of the semi-circle of the circle.

(i) {d,a,b} (ii) {a,b} (iii) {b,e} (iv) {c,e} (v) {c,e,b}

12. If the diameter of a circle is 56 cm, what is its radius?

(i) 27 cm (ii) 30 cm (iii) 29 cm (iv) 26 cm (v) 28 cm

13. If the radius of a circle is 63 cm, what is its diameter?

(i) 124 cm (ii) 125 cm (iii) 128 cm (iv) 126 cm (v) 127 cm

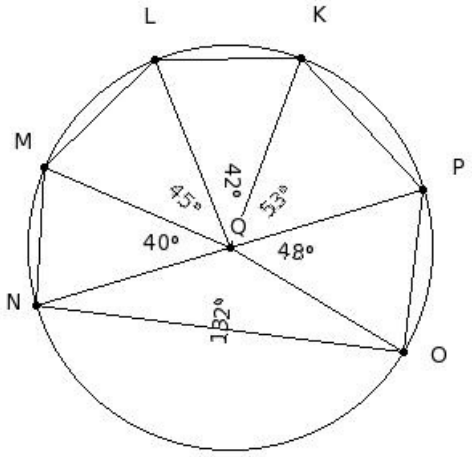
14. If the radius of a circle is 14 cm, what is its circumference?

(i) 86 cm (ii) 87 cm (iii) 90 cm (iv) 88 cm (v) 89 cm

15. Two circles with equal radii are

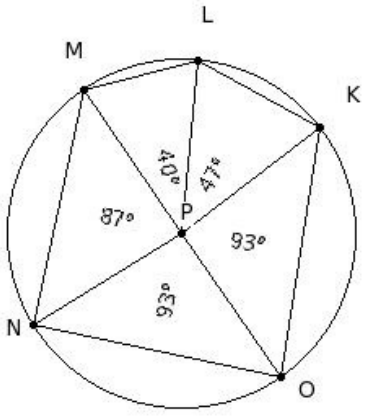
(i) not similar (ii) congruent (iii) only similar but not congruent (iv) concentric

16. The centre of the circle is



(i) M (ii) N (iii) K (iv) Q (v) L

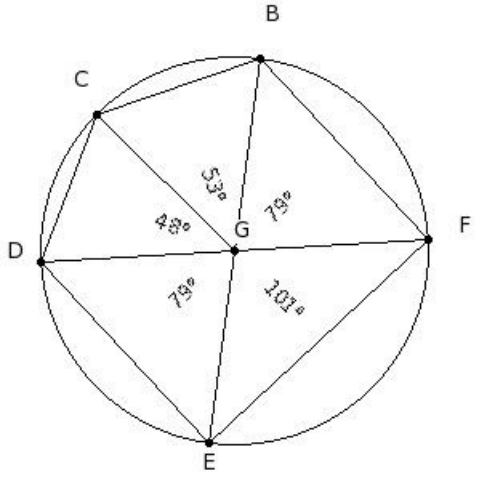
17. The chords of the circle are



(i) $\overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OK}, \overline{PN}$ (ii) $\overline{PK}, \overline{PL}, \overline{PM}, \overline{PN}, \overline{PO}$ (iii) $\overline{LM}, \overline{MN}, \overline{NO}, \overline{OK}$ (iv) $\overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OK}, \overline{MO}$

(v) $\overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OK}$

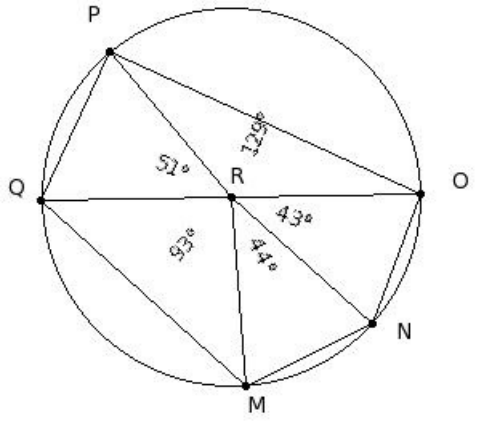
18. The diameters of the circle are



(i) $\overline{GB}, \overline{GC}, \overline{GD}, \overline{GE}, \overline{GF}$ (ii) $\overline{GB}, \overline{GC}, \overline{GD}, \overline{GE}, \overline{GF}, \overline{DF}$ (iii) $\overline{BC}, \overline{CD}, \overline{DE}, \overline{EF}, \overline{FB}$ (iv) $\overline{DF}, \overline{Ex}$

(v) $\overline{BC}, \overline{CD}, \overline{DE}, \overline{EF}, \overline{FB}, \overline{DF}$

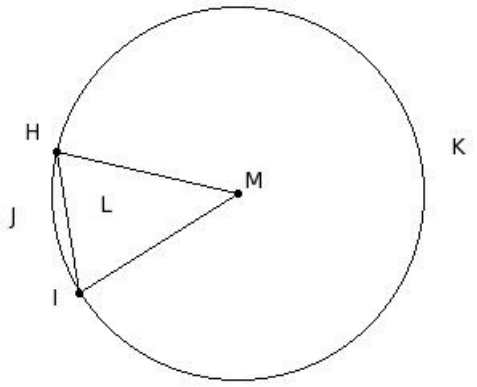
19. The radii of the circle are



(i) $\overline{MN}, \overline{NO}, \overline{OP}, \overline{PQ}, \overline{QM}, \overline{OQ}$ (ii) $\overline{RM}, \overline{RN}, \overline{RO}, \overline{RP}, \overline{RQ}$ (iii) $\overline{MN}, \overline{NO}, \overline{OP}, \overline{PQ}, \overline{QM}, \overline{RM}$

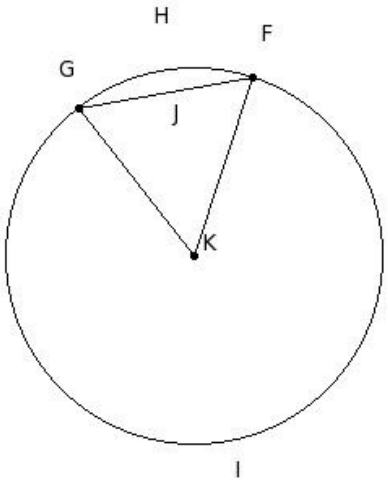
(iv) $\overline{MN}, \overline{NO}, \overline{OP}, \overline{PQ}, \overline{QM}$ (v) $\overline{NO}, \overline{OP}, \overline{PQ}, \overline{QM}$

20. The minor sector of the circle is



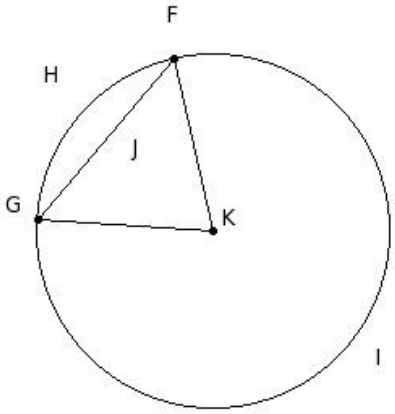
(i) HKI (ii) HKILH (iii) HJI (iv) MHKIM (v) MHJIM

21. The major sector of the circle is



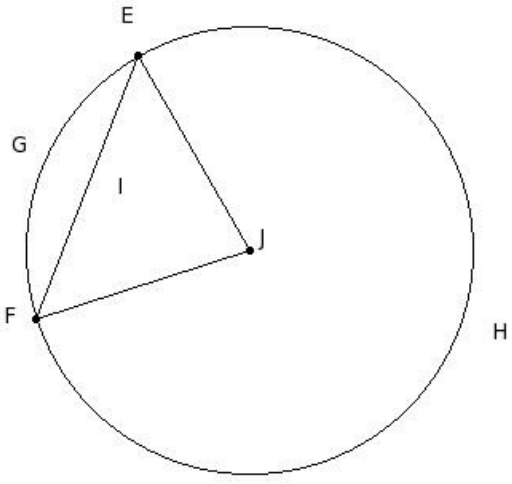
(i) KFHGK (ii) FHGJF (iii) KFIGK (iv) FHG (v) FIGJF

22. The minor arc of the circle is



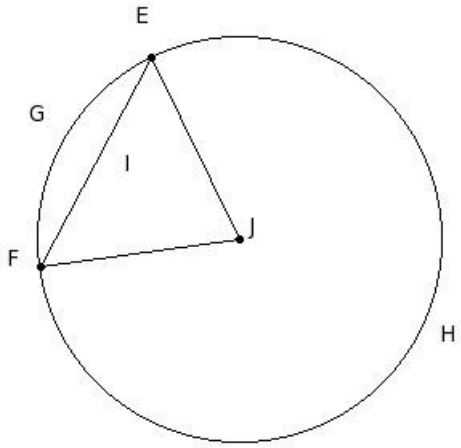
(i) FIGJF (ii) FHG (iii) KFHGK (iv) FIG (v) FHGJF

23. The major arc of the circle is



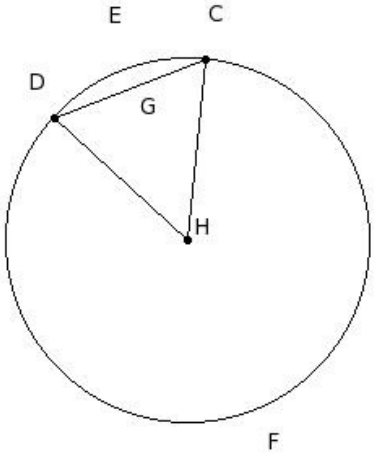
(i) EHFIE (ii) EHF (iii) EGF (iv) JEHFJ (v) JEGFJ

24. The minor segment of the circle is



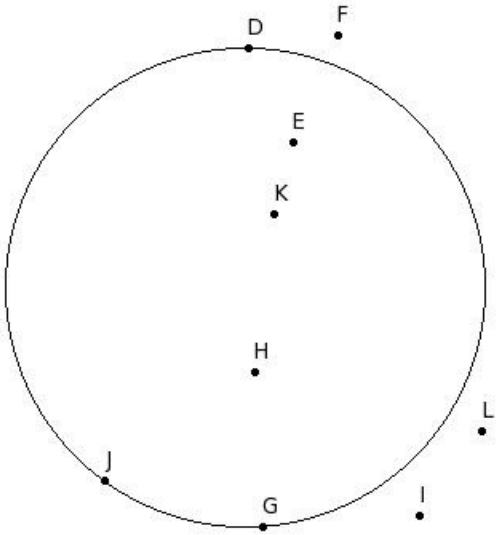
(i) EGFIE (ii) EGF (iii) EHFIE (iv) JEHFJ (v) JEGFJ

25. The major segment of the circle is



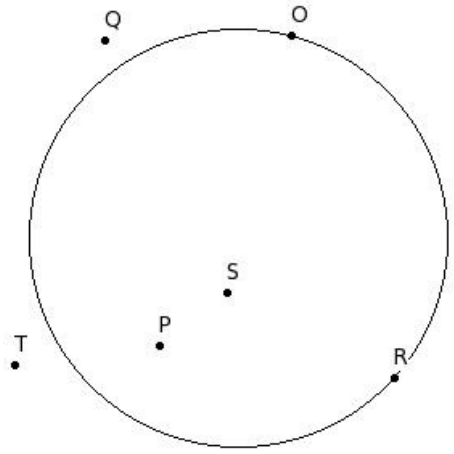
(i) HCEDH (ii) CFD (iii) CEDGC (iv) CED (v) CFDGC

26. Find the points belonging to the circle



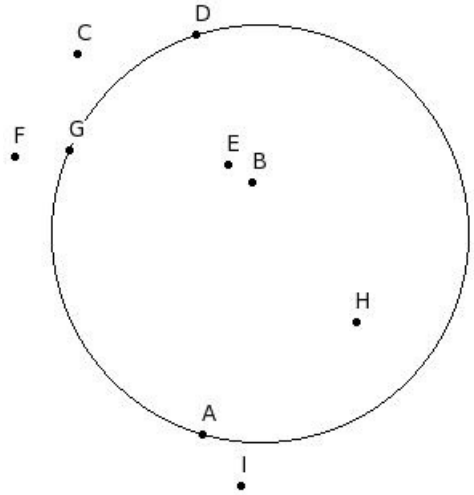
(i) {E,H,K} (ii) {D,G,F} (iii) {F,I,L} (iv) {D,G,J} (v) {K,J,D}

27. Find the points belonging to the inside of the circle



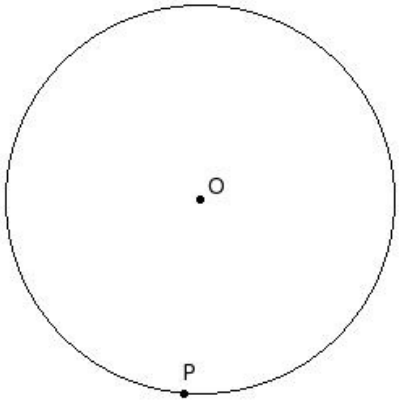
(i) {R,P} (ii) {P,S} (iii) {O,R} (iv) {Q,P} (v) {Q,T}

28. Find the points belonging to the outside of the circle



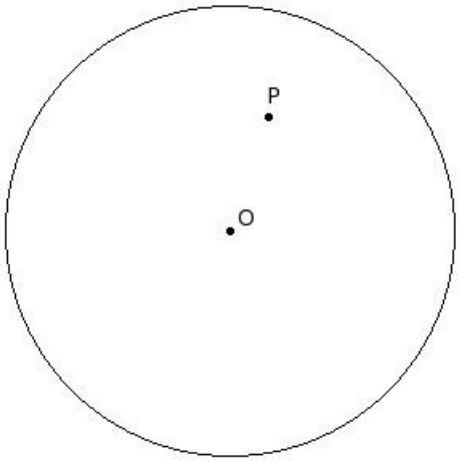
(i) {A,D,G} (ii) {F,A,C} (iii) {C,H,F} (iv) {B,E,H} (v) {C,F,I}

29. 'O' is the centre of a circle of radius 'r' and 'P' is any point in its plane. If $\overline{OP}$ = r ,then P is



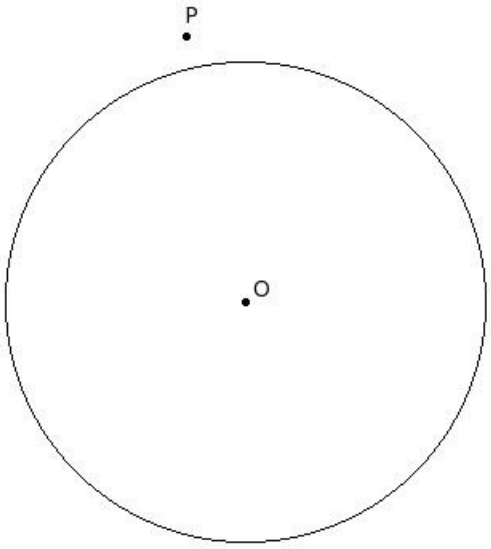
(i) inside the circle (ii) on the circle (iii) outside the circle

30. 'O' is the centre of a circle of radius 'r' and 'P' is any point in its plane. If $\overline{OP}$ < r,then P is



(i) on the circle (ii) inside the circle (iii) outside the circle

31. 'O' is the centre of a circle of radius 'r' and 'P' is any point in its plane. If $\overline{OP}$ > r,then P is



(i) on the circle (ii) outside the circle (iii) inside the circle

32. The distance around the circle is called

(i) circumference (ii) arc (iii) diameter (iv) chord (v) radius

33. A line which intersects the circle at two distinct points is called a

(i) major segment (ii) chord (iii) secant (iv) circumference (v) segment

34. A line which touches a circle at only one point is called a

(i) chord (ii) major segment (iii) tangent (iv) radius (v) centre

35. If the two radii OP and OQ of a circle are at right angles to each other, then the sector OPQ is called a

(i) radius (ii) major segment (iii) secant (iv) quadrant (v) centre

36. Which of the following statements are true?

a) A chord divides a circle into two segments.
b) The diameter is the longest chord.
c) Atmost one chord can be drawn on a circle with a certain length.
d) The radius is the shortest chord.
e) A chord divides a circle into two sectors.

(i) {d,b,a} (ii) {e,c,a} (iii) {a,b} (iv) {c,a} (v) {d,b}

37. Which of the following statements are true?

a) The farther the chord is from the centre, the larger the angle it subtends at the centre.
b) No two chords bisects each other.
c) Equal length chords are equidistant from the centre of the circle.
d) Equal length chords subtend equal angles at the centre of the circle.
e) The longest chord of the circle passes through the centre of the circle.

(i) {c,d,e} (ii) {a,c} (iii) {a,c,d} (iv) {a,b,e} (v) {b,d}

38. Which of the following statements are true?

a) A sector is the area enclosed by two radii and a chord.
b) The diameter divides the circle into two unequal parts.
c) The area enclosed by a chord and its major arc is called major segment.
d) The area enclosed by a chord and its minor arc is called minor segment.
e) A circle divides the plane on which it lies into three parts.

(i) {a,c,d} (ii) {a,c} (iii) {c,d,e} (iv) {a,b,e} (v) {b,d}

39. Which of the following statements are true?

a) The diameter divides the circle into two unequal parts.
b) The longest of all chords of a circle is called diameter.
c) A sector is the area enclosed by two radii and a chord.
d) Two chords bisect each other.
e) The midpoint of any diameter of a circle is its centre.

(i) {d,a,b} (ii) {c,e} (iii) {b,e} (iv) {a,b} (v) {c,e,b}

40. Which of the following statements are true?

a) Only one circle can be drawn with a centre.
b) Atmost one circle can be drawn passing through three non-collinear points.
c) Only one circle can be drawn passing through two points.
d) Exactly two tangents can be drawn parallel to a secant.
e) Infinite circles can be drawn passing through three collinear points.

(i) {e,a,b} (ii) {c,d} (iii) {a,b} (iv) {b,d} (v) {c,d,b}

41. The point of intersection of the angular bisectors of a triangle is

(i) orthocentre (ii) centroid (iii) excentre (iv) circumcentre (v) incentre

42. If the radius of the circumcircle is half the length of a side of the triangle, then the triangle is

(i) obtuse angled triangle (ii) equilateral triangle (iii) acute angled triangle (iv) right angle triangle

43. Circles having common centre are called

(i) concentric circles (ii) intersecting circles (iii) congruent circles (iv) similar circles

44. If two circles are concentric, then

(i) their radii are same (ii) their perimeters are same (iii) their centres are same

(iv) their diameters are same

45. Which of the following figures represent a chord ?

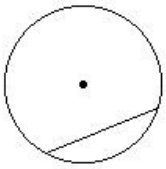


fig I

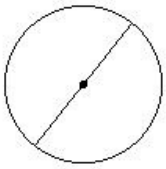


fig II

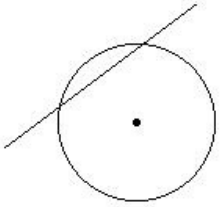


fig III

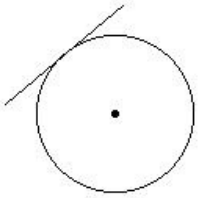


fig IV

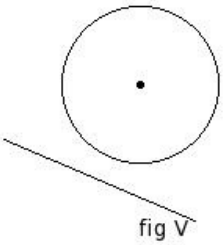


fig V

(i) fig V (ii) fig II (iii) fig I (iv) fig III (v) fig IV

46. Which of the following figures represent a diameter ?

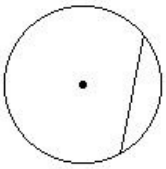


fig I

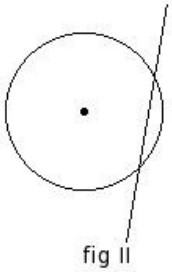


fig II

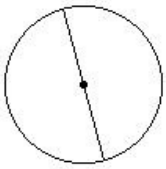


fig III

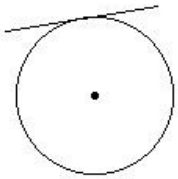


fig IV

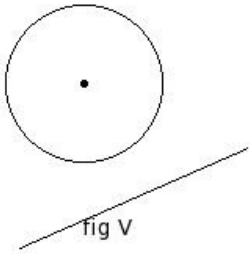


fig V

(i) fig V (ii) fig I (iii) fig II (iv) fig IV (v) fig III

47. Which of the following figures represent a secant ?

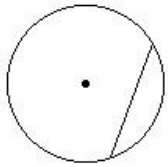


fig I

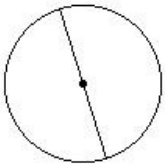


fig II

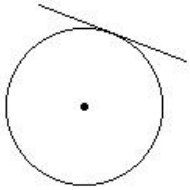


fig III

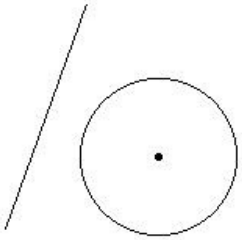


fig IV

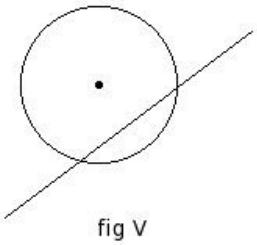


fig V

(i) fig I (ii) fig II (iii) fig III (iv) fig IV (v) fig V

48. Which of the following figures represent a tangent ?

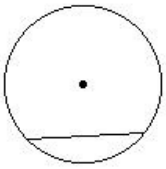


fig I

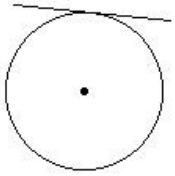


fig II

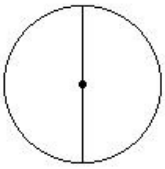


fig III

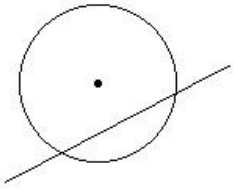


fig IV

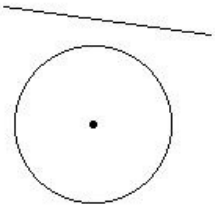


fig V

(i) fig III (ii) fig IV (iii) fig V (iv) fig II (v) fig I

49. In triangle IJK, if a circle is drawn with JK as diameter and if it passes through I it is a

(i) right angle triangle (ii) acute angled triangle (iii) obtuse angled triangle (iv) equilateral triangle

50. Which of the following statements are true?

a) All chords of a circle are diameters.
b) All diameters of a circle are chords.
c) $\frac{22}{7}$ is a rational number.
d) A circle divides the plane into three mutually disjoint sets of points.
e) π is a rational number.

(i) {a,e,d} (ii) {b,c,d} (iii) {e,c} (iv) {a,b} (v) {a,b,c}

51. Points which lie on the circumference of the circle are called

(i) Cyclic points (ii) Similar points (iii) Concyclic points (iv) Concurrent points (v) Coincident points

Assignment Key

1) (iii)	2) (iii)	3) (ii)	4) (iv)	5) (ii)	6) (iv)
7) (ii)	8) (iv)	9) (v)	10) (iii)	11) (iii)	12) (v)
13) (iv)	14) (iv)	15) (ii)	16) (iv)	17) (v)	18) (iv)
19) (ii)	20) (v)	21) (iii)	22) (ii)	23) (ii)	24) (i)
25) (v)	26) (iv)	27) (ii)	28) (v)	29) (ii)	30) (ii)
31) (ii)	32) (i)	33) (iii)	34) (iii)	35) (iv)	36) (iii)
37) (i)	38) (iii)	39) (iii)	40) (iv)	41) (v)	42) (iv)
43) (i)	44) (iii)	45) (iii)	46) (v)	47) (v)	48) (iv)
49) (i)	50) (ii)	51) (iii)			